



THE EFFECT ON SELF TALK ON THE IMPROVEMENT OF READING COMPREHENSION SKILLS AND HEALTH EDUCATION OF STUDENTS WITH INTELLECTUAL DISABILITIES

Katsarou Dimitra¹ | ZisiVasiliki² | Kokaridas Dimitrios²

¹ Department of Special Education, University of Thessaly.

² Department of Sports Science, University of Thessaly.

ABSTRACT

The purpose of the present investigation was to examine if self-talk may affect the reading comprehension and knowledge on health education of students with mild mental retardation. The participants were 22 male and female adolescents with mild mental retardation and borderline intelligence, aged 12-22 years. They were randomly assigned to an experimental (N=15) and a control group (N=7). The experimental group participated in an intervention program, based on the psychological technique of self-talk, aiming on improving reading comprehension skills and increasing knowledge on health education issues. After the intervention, the performance of the experimental group on reading comprehension tests and health education knowledge tests was significantly improved ($p < .05$), while in the control group, no performance change was noticed. These findings suggest that self talk can increase the reading comprehension and the knowledge of health education in students with mild mental retardation.

KEYWORDS: self-talk, health education, reading comprehension, intellectual disabilities.

INTRODUCTION:

Verbal development and learning are a seemingly easy procedure, but it is going in fact about a complex code that uses symbols to allow each person to communicate (Bloom & Lahey, 1978). This procedure is not always clear, since children with typical development have the potential to become capable users of this new communication code without necessarily needing to be taught as in the case of written language (Andreou, 2012).

Learning to read is critical for educational success and effective independent living. Several studies have shown that children with intellectual disabilities typically have severe limitations in language comprehension skills compared to typically developing children (Katsarou & Andreou, 2017; Metsala & Walley, 1998). Furthermore, language deficits including phonological problems and decoding procedures are related to the poor reading ability in children with mental retardation (Snowling, Nash & Henderson, 2008). Unfortunately, there are limited data on reading comprehension abilities among children with intellectual disabilities and no further research has been made in receptive reading in the Greek language in children with intellectual disabilities. Therefore, the field of reading comprehension skills in this area still remains a fruitful field of study.

Researches applying psychological techniques on people with disabilities like Sherill (1997), Stamou, Theodorakis, Kokaridas, Perkis & Kessanopoulou (2007), Theodorakis, Goudas and Papaioannou (2003) and Kokaridas (2010) show that these techniques can actually have benefits on disabled individuals. Taking that into consideration the psychological technique of self talk was chosen due to its proof of enhancing performance (Hatzigeorgiadis, Zourbanos, Boubaki, & Theodorakis, 2009; Perkis, Theodorakis & Chroni, 2002). Self-talk has been central in cognitive behavioural modification (Meichenbaum, 1977). Based on the principle that what people say to themselves affects the way they behave (Ellis, 1976), strategies involving mental processes have been developed to regulate cognitions and develop or change existing thought patterns, and self talk is one of them.

The research was combined with health education issues and especially in smoking prevention in an attempt to improve the well being of children with mental retardation (Theodorakis, Papaioannou & Karastogiannidou, 2004).

PURPOSE:

The purpose of the study was to examine the effect of self talk on the improvement of reading comprehension skills that aim to promote receptive language abilities and healthier behavior patterns of students with intellectual disabilities. The overall goal was to propose the first health education program in Greece that can be applied to students with intellectual disabilities through the use of self talk and reading comprehension strategies. It was hypothesized that the participants in the experimental group will score higher in a reading comprehension and in a health education knowledge test, after the intervention, while this will not be the case for the participants in the control group.

METHODOLOGY:

Participants:

The participants were 22 male and female adolescent students (N=22, M. Age=16.38 years) with mild mental retardation (N=14) and borderline intelligence (N=8).

Their IQ level was verified using the Greek version of WISC-III (Georgas, Paraskevopoulos, Bezevegkis & Giannitsa, 1997). They were randomly assigned to a control (N=7) and experimental group (N=15). The experimental group attended the intervention program, while the control group followed the typical school program.

Measurements:

Reading Comprehension, was assessed using the "Athena Test" (Paraskevopoulos, Kalatzi-Azizi, & Giannitsas, 1999). It is a standardized test, consisting of 32 linguistic items measuring reading comprehension skills.

Knowledge on Health Education, was accessed using a standardized test developed to access knowledge on Health Education in typical students (Theodorakis, Goudas, & Hassandra, 2006).

Procedure:

During the first measurement, students in both groups were asked to fill in the questionnaires of Reading Comprehension and Knowledge on Health Education with no further explanations from the researcher. After that, the experimental group had been taught the psychological technique of self talk (deep breath and thinking the words "I can do it") throughout a health education program that consisted of lectures and activities about smoking prevention. The duration of the program was 14 hours in total, spread in 7 2-hourly sessions, 2 sessions per week. At the end of the intervention, both groups were re-tested in the same measurements.

RESULTS:

Statistical analysis was conducted using SPSS 20.0. The criteria for normal distribution was not met and thus the non parametric analysis Wilcoxon was used to access the differences between the first and final measurement. Moreover, the non parametric test Mann Whitney U was included to evaluate the differences between the two groups.

Results indicated a significant increase of performance, in both measurements, only for the experimental group ($p < .05$). Findings suggest an important effect of self talk on the improvement of reading comprehension skills ($Z = 3.43$, $p < .05$) and knowledge on health education issues of students with intellectual disabilities ($Z = 3.424$, $p < .05$). From the data it was concluded that reading comprehension performance was better in the experimental group ($U = 9.5$, $p < .05$) and in the overall knowledge on health education ($U = 21.5$, $p < .05$).

DISCUSSION:

The purpose of this research was to examine if comprehensive and reading and understanding text of health education can be improved through the psychological technique of self talk. Burnett (2003) also indicated the improvements of language comprehension through self talk between children and teachers, especially when teachers gave positive signals. The program that was used in this research is "I don't smoke, I exercise", an intervention program that aims the avoidance of smoking and the start of exercise and was designed including five theories (social learning, health belief model, planned behavior theory, aim theory and theory of persuasion).

This research shows that self talk has positive effects on comprehensive reading and understanding texts of health education. This statement agrees with the result of other researches stating that self talk can be useful in education, since its positive effects can be apparent in many different education areas (Burnett, 1994; Ronan & Kendall, 1997). According to the results, during the first measurement no significant differences were found between the control group and the experimental group in any factor. However, during the final measurement the experimental group exhibited significant differences in all factors of the research.

In comprehensive reading the experimental group achieved higher scores indicating that this psychological technique is useful for educational purposes as previously mentioned. In the field of health education results agree with the results of Hwang, Yeagley and Petosa (2004) who claim that smoking knowledge is the most important short term result in an intervention program. The result on smoking effect on teenagers indicate that the experimental group individuals still improved their knowledge. This does not agree with the statement of the School Health Education Evaluation, which refers that in order to improve knowledge in several issues of health education 10-15 hours are sufficient. However in order to change the behavior more than 50 hours are necessary (Powers, Struempfer, Guarino & Parmer, 2005). Finally the knowledge related to passive smokers also improved in the experimental group. The results come to agreement with other researches showing that discussion can activate healthy behaviors and change life perspective (Wertheim, Paxton, Schutz, & Muir, 1997)

LIMITATIONS:

The results of the present study must be treated with caution since it was only a small-scale investigation and children with intellectual disabilities who consisted our sample were not followed longitudinally. Therefore, there is a need for more longitudinal research studies on intellectual disabilities and health education with larger samples which will be followed from childhood right through adolescence and adulthood.

REFERENCES:

1. Andreou, G. (2012). Language, theoretical and methodological approach. Athens, Greece: Pedio.
2. Bloom, L. & Lahey, M. (1978). Language development and language disorders. New York: John Wiley & Sons.
3. Burnett, P.C. (2003). The impact of teacher feedback on student self-talk and self-concept in reading and mathematics. *Journal of Classroom Interaction*, 38, 11-16.
4. Burnett, P.C. (1994). Self-talk in upper elementary school children: Its relationship with irrational beliefs, self-esteem, and depression. *Journal of Rational-Emotive and Cognitive Behavior Therapy*, 12, 181-188.
5. Ellis, A. (1976). Reason and emotion in psychotherapy. New York: Lyle Stuart.
6. Georgas, D., Parskevopoulos, I., Bezevegkis, I. & Giannitsas, N.D. (1997). Greek WISC III. Athens, Greece: Ellinika Grammata.
7. Hatzigeorgiadis, A., Zourbanos, N., Boubaki, S. & Theodorakis, Y. (2009). Mechanisms underlying the self-talk – performance relationship: The effects of self-talk on self-confidence and anxiety. *Psychology of Sport & Exercise*, 10, 186-192.
8. Hwang, M.S., Yeagley, K.L. & Petosa, R. (2004). A meta-analysis of adolescent psychological smoking prevention programs published between 1978 and 1997 in the United States. *Health Education & Behavior*, 31(6), 702–719.
9. Katsarou, D. & Andreou, G. (2017). Receptive and expressive semantic skills in children with Down Syndrome. *International Education and Research Journal*, 3(3), 135-136.
10. Kokaridas, D. (2010). Exercise and disability. Thessaloniki, Greece: Christodoulidis.
11. Meichenbaum, D. (1977). Cognitive-behavior modification: An integrative approach. New York: Plenum.
12. Metsala, J.L. & Walley, A. C. (1998). Spoken vocabulary growth and the segmental restructuring of lexical representations: Precursors to phonemic awareness and early reading ability. In J.L. Metsala & L.C. Ehri (Eds.), *Word recognition in beginning literacy* (pp. 89–120). Hillsdale, NJ: Erlbaum.
13. Papaioannou, A., Karastogiannidou, C. & Theodorakis, Y. (2004). Sport involvement, sport violence and health behaviours of Greek adolescents. *The European Journal of Public Health*, 14(2), 168-172.
14. Paraskevopoulos, I.N., Kalatzi-Azizi, A. & Giannitsas, N.D. (1999). Structure and utility of Athina Test. Athens, Greece: Ellinika Grammata.
15. Perkios, S., Theodorakis, G., & Chroni, S. (2002). Enhancing performance and skill acquisition in novice basketball players with instructional self talk. *The Sport Psychologist*, 16, 368-383.
16. Powers, A.R., Struempfer, B.J., Guarino, A., & Parmer, S.M. (2005). Effects of a nutrition education program on the dietary behavior and nutrition knowledge of second grade and third-grade students. *Journal of School Health*, 75(4), 129-133.
17. Ronan, K.R. & Kendall, P.C. (1997). Self-talk in distressed youth: States-of-mind ad content specificity. *Journal of Clinical Child Psychology*, 26, 330-337.
18. Sherill, C. (1997). Disability, identity, and involvement in sport and exercise. In K. R. Fox (Ed.). *The physical self: From motivation to well being*. (pp. 257-286). Champaign IL: Human Kinetics.
19. Snowling, M.J., Nash, H.M. & Henderson, L.M. (2008). The development of literacy skills in children with Down syndrome: Implications for intervention. *Down Syndrome Research and Practice*, 20, 20- 66.
20. Stamou, E., Theodorakis, Y., Kokaridas, D., Perkios, S., & Kessanopoulou, M. (2007). The effect of self-talk on the penalty execution in goalball. *The British Journal of Visual Impairment*, 25 (3), 233-247.

21. Theodorakis, Y., Goudas, M. & Hassandra, M. (2006). I don't smoke, I exercise. Coursebook for students. University of Thessaly, Trikala, Greece.
22. Theodorakis, Y., Goudas, M. & Papaioannou, A. (2003). Psychological excellence in sports. Thessaloniki, Greece: Christodoulidis Publications.
23. Wertheim, E.H., Paxton, S.J., Schultz, H.K. & Muir, S.L. (1997). Why do adolescent girls watch their weight? An interview study examining sociocultural pressures to be thin. *Journal of Psychosomatic Research*, 42, 345–355.